REMARKS

In an office action dated February 26, 2002, the Examiner rejected claims 1-16 under 35 U.S.C. §102(b) as anticipated by Knudson et al. (US 5,765,140).

Applicants have amended independent claims 1, 8 and 15 to clarify the essential features of an interface, and to distinguish the recited interface from mere table data. For the reasons stated herein, claims 1, 8 and 15, as amended, are patentable over the cited art.

In order to appreciate the issues presented herein, a background discussion is in order. Applicants' invention is in the realm of user interface, and provides an improved user interface for complex project tracking. In the realm of user interface, it is often the case that a useful, new and unobvious invention does not provide the user with any new capability to perform some action which could not previously be performed by other means, but instead, provides the user with the capability to perform the action in a manner which is more efficient, more natural, easier to learn, easier to implement and/or in some other respect, better, from the user interface perspective, than prior art techniques.

This distinction is a subtle but important one. It may be observed, for example, that the ubiquity of so-called "personal computers" is due in large part to the fact that graphical user interfaces have made use of such systems comfortable to the average person, who lacks skilled training as a typist or computer operator. However, in general such GUI's do not provide the user with any new capability which did not previously exist. Almost all system tasks invoked using a GUI interface can also be invoked using older text-based interfaces.

Applicants' invention addresses a specific area of user interface, namely, the user interface for a multi-user project tracking. More particularly, applicants' invention is useful where the

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users can be divided into different groups[1] performing different, though possibly overlapping, functions. In a typical such case, there is considerable commonality among the various groups, such as a need to access a common database and perform certain common functions in relation thereto. Other functions may be particular to a single group of users or to some subset of all the groups. Applicants have further observed that different groups performing tasks using a common database sometimes have a different terminology for the same task.

Most conventional project tracking systems provide a standard interface or set of interfaces which may be considered a logical "OR" of the user interface requirements of each separate group of users. I.e., any function required by at least one of the user groups is provided by the standard interface. This means that the users of any given group are presented with all available interactive user interface selections, whether or not any given selection is actually used by that group of users.

It would, of course, be possible to write custom computer programming code providing different interfaces for different groups of users. However, the cost of creating custom programming code discourages this approach.

It is further possible to separately define a different standard user interface for each group of users. I.e., instead of a single standard user interface for all users, a number of separate interfaces equal to the number of users of user groups could be defined. While this approach is generally less costly to implement than custom programming code, it does add expense and complication to the creation and maintenance of the user interface. For example, each user or group of users would have different programming code loaded on his machine, which must be separately tracked and updated for maintenance purposes.

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[1] A "group" typically consists of multiple users, but may consist of a single user.

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In accordance with applicants' invention, a custom user interface definition feature is

provided, whereby custom user interfaces for different user groups may be interactively defined.

The custom user interfaces are preferably subsets of the standard user interface available to all

groups, in the sense that they provide access to some subset of the functions available to all user

groups, the subset being those functions needed by the corresponding group. The standard

interface preferably remains available to all users, while the custom interface for the user's group

is an optional interface available to all users in the group. In the preferred embodiment, the

capability to flexibly and easily define different group user interfaces is supported by using

interface definition files. These are editable data structures (not executable code) which define

customization parameters for use by the interface generator (which is an executable program), so

that different interfaces are presented to the users.

It will be observed that applicant's interface definition files are themselves mere data

which do not perform a function without an interface generator or similar function to generate the

interactive interface from the interface definition files. The capability to generate a custom

interface from group-specific data is a significant feature of applicants' invention.

Knudson discloses what it calls a "project management system", in which tasks to be

performed , schedules, funding and similar information are tracked in a database. *Knudson*

discloses that different personnel associated with a project might have different schedules and

different tasks to perform. However, the *interface* presented to each user is the same. I.e.,

Knudson does not disclose different interfaces associated with different groups of users. This is a

significant point of distinction.

The Examiner observes that *Knudson* discloses a scheduling record ("time sheet") which

tracks different project tasks performed or to be performed by different individuals, and that

different individuals might perform different tasks. The Examiner apparently considers this file

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the equivalent of a project tracking interface, as recited in applicants' claims. However, *Knudson's* time sheets are simply editable data for tracking the status of a project. They are not an interface, i.e., they do not present the user with interactive selections, which can be selected by the user to invoke different actions from the computer.

Although applicants believe that the original claim language was sufficiently explicit with regard to the requirement of an "interface", applicants have nevertheless elected to clarify the claim language to leave no doubt regarding the distinction between an interface, which is what is claimed, and a table of data which tracks project status. The amended claim language recites the features of interactive selection of different entries and consequent execution of a task corresponding to the selected entry by the system. These recitations are manifestly not met by a table of data, as disclosed in *Knudson*. For example, amended claim 1 recites in part:

> 1. A method for managing a project ... comprising the steps of:
> interactively defining a plurality of groups of users ...;
> interactively defining, for each of said plurality of groups of users, a respective project tracking interface, each project tracking interface having a respective set of task selections, each task selection ... corresponding to a respective task action performed by said at least one computer system, wherein a first set of task selections ... for a first group of users is different from a second set of task selections ... for a second group of users;
> associating a first user with said first group of users;
> presenting said first project tracking interface ... to said first user;
> *performing task actions ... responsive to said first user interactively selecting the corresponding task selections of said first set of task selections*;
> associating a second user with said second group of users;
> presenting said second project tracking interface ... to said second user; and
> *performing task actions ... responsive to said second user interactively selecting the corresponding task selections of said second set of task selections*. [emphasis added]

As explained previously, *Knudson's* time sheets are merely tables of data. Even assuming arguendo that *Knudson's* time sheets are "project tracking interfaces" (a point which applicants do not concede), the italicized limitations are not met. I.e., the user can not interactively select

entries in the time sheet to invoke some task action by the computer system. Accordingly, claim 1 as amended is not anticipated by *Knudson.*

Amended claim 8 is a program product claim with limitations analogous to claim 1, and is similarly not anticipated by *Knudson.*

Amended claim 15 recites a program product containing an interface definition function and an interface generator. Claim 15 recites in part:

> 15. A computer program product for managing a project ... comprising:
>   an interface definition access function, said interface definition access function accessing a project tracking interface definition ... of a plurality of project tracking interface definitions, each said project tracking interface definition being associated with a respective group of users ..., each project tracking interface definition having a respective set of task selections, wherein a first set of task selections of said first project tracking interface definition ... is different from a second set of task selections of a second project tracking interface definition ...; and
>   a project tracking interface generator, said generator generating a project tracking interface defined by a project tracking interface definition ..., *said project tracking interface ... presenting a user with the set of task selections of the project interface definition and allowing the user to invoke task actions corresponding to respective task selections presented to the user by interactively selecting the corresponding respective task selections.* [emphasis added]

Although not identical in scope to claims 1 or 8, it can be seen that claim 15 likewise recites the essential features of an "interface", i.e., that the user is presented with a set of task selections, and that corresponding task actions are invoked when the user interactively selects one of the task selections. For the reasons stated above, the italicized limitation is not met by *Knudson*, even assuming (which applicants do not concede) that all other limitations are met by *Knudson.* Accordingly, amended claim 15 is not anticipated by *Knudson.*

Nor are claims 1, 8 or 15 (as amended) obvious over *Knudson.* The thrust of *Knudson's* patent is the organization of data in a complex project tracking environment. To that end,

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different people are associated with different tasks in the database. But *Knudson* is silent

regarding the interface that is used, and to the extent it says anything, the implication is that all

users access a common interface (common program) which tracks projects status. There is

nothing in *Knudson* that would suggest that different users or groups of users be presented with

different interactive interfaces based on membership in their respective groups, each "interface"

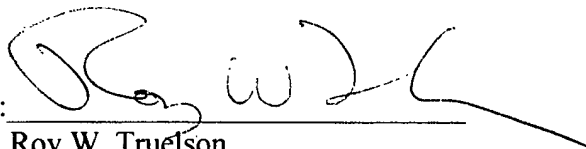presenting different interactive task selections to the user.

Applicant's preferred embodiment utilizes interface definition files (which are tables of

data) to support the generation of different interfaces. Although *Knudson* also discloses tables of

data ("time sheets") having vaguely similar information, the underlying data is only one piece of

an interface mechanism. The most essential part is computer programming code which generates

the customized interfaces on the basis of the table data (interface definition files). *Knudson* does

not teach or suggest any such mechanism, and its time sheet data is used for different purposes.

For this and all other reasons stated herein, applicants' independent claims 1, 8 and 15 are

patentable over the cited art.

The remaining claims are dependent on either claim 1, 8 or 15, and are patentable for the

same reasons. Additionally, applicants have added new dependent claims 17 and 18, which recite

the feature that tasks are presented by the interface in a suggested chronological order with indicia

of the next probable task to execute.

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In view of the foregoing, applicants submit that the claims are now in condition for allowance and respectfully request reconsideration and allowance of all claims. In addition, the Examiner is encouraged to contact applicants' attorney by telephone if there are outstanding issues left to be resolved to place this case in condition for allowance.

Respectfully submitted,

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APPENDIX OF MARKED-UP CLAIMS

1   1.   (Amended) A method for managing a project requiring a plurality of tasks performed on

2   at least one computer system by a plurality of users, comprising the steps of:

3   interactively defining a plurality of groups of users associated with the project;

4   interactively defining, for each of said plurality of groups of users, a respective project

5   tracking interface, each project tracking interface having a respective set of task selections, each

6   task selection of a set of task selections corresponding to a respective task action performed by

7   said at least one computer system, wherein a first set of task selections of a first project tracking

8   interface for a first group of users is different from a second set of task selections of a second

9   project tracking interface for a second group of users;

10   associating a first user with said first group of users;

11   presenting said first project tracking interface having said first set of task selections to said

12   first user;

13   performing task actions corresponding to task selections of said first set of task selections

14   responsive to said first user interactively selecting the corresponding task selections of said first

15   set of task selections;

16   associating a second user with said second group of users; [and]

17   presenting said second project tracking interface having said second set of task selections

18   to said second user; and

19   performing task actions corresponding to task selections of said second set of task

20   selections responsive to said second user interactively selecting the corresponding task selections

21   of said second set of task selections.

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1   2.   (Unchanged) The method of claim 1, wherein said step of interactively defining, for each

2   of said plurality of groups of users, a respective project tracking interface, comprises interactively

3   defining, for each task selection, a respective task description, whereby a task selection for a first

4   project tracking interface may have a first task description, and the same task selection for a

5   second project tracking interface may have a second task description different from said first task

6   description.

1   3.   (Unchanged) The method of claim 1, wherein each task selection displayed in a project

2   tracking interface includes a task status indicator.

1   4.   (Unchanged) The method of claim 3, wherein said task status indicator is assumes one of

2   a plurality of colors, each color corresponding to a respective status.

1   5.   (Unchanged) The method of claim 1, wherein said step of interactively defining, for each

2   of said plurality of groups of users, a respective project tracking interface, comprises generating,

3   for each of said plurality of groups of users, a respective interface definition file, said interface

4   definition files containing entries corresponding to tasks, wherein a first interface definition file

5   for defining said first project tracking interface contains a respective entry for each task selection

6   in said first set of task selections, and a second interface definition file for defining said second

7   project tracking interface contains a respective entry for each task selection in said second set of

8   task selections.

1   6.   (Unchanged) The method of claim 5, wherein each said entry in an interface definition

2   file includes a respective task description field, whereby a task selection for said first project

3   tracking interface may have a first task description, and the same task selection for said second

4   project tracking interface may have a second task description different from said first task

5   description.

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6   7.   (Unchanged) The method of claim 5, wherein each said entry in an interface definition

7   file includes a respective scope field specifying the scope of the task selection, whereby a task

8   selection for said first project tracking interface may have a first scope, and the same task

9   selection for said second project tracking interface may have a second scope different from said

10   first scope.

1   8.   (Amended) A computer program product for managing a project requiring a plurality of

2   tasks performed on at least one computer system by a plurality of users, said computer program

3   product comprising:

4   a plurality of processor executable instructions recorded on signal-bearing media, wherein

5   said instructions, when executed by at least one processor, cause at least one computer to perform

6   the steps of:

7   receiving interactive input defining a plurality of groups of users associated with the

8   project;

9   receiving interactive input defining, for each of said plurality of groups of users, a

10   respective project tracking interface, each project tracking interface having a respective set of task

11   selections, each task selection of a set of task selections corresponding to a respective task action

12   performed by said at least one computer system, wherein a first set of task selections of a first

13   project tracking interface for a first group of users is different from a second set of task selections

14   of a second project tracking interface for a second group of users;

15   associating a first user with said first group of users;

16   presenting said first project tracking interface having said first set of task selections to said

17   first user;

18   invoking task actions corresponding to task selections of said first set of task selections

19   responsive to receiving interactive input from said first user selecting the corresponding task

20   selections of said first set of task selections;

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21   associating a second user with said second group of users; [and]

22   presenting said second project tracking interface having said second set of task selections

23 to said second user; and

24   invoking task actions corresponding to task selections of said second set of task selections

25 responsive to receiving interactive input from said second user selecting the corresponding task

26 selections of said second set of task selections.

1   9.   (Unchanged) The program product of claim 8, wherein said interactive input defining, for

2 each of said plurality of groups of users, a respective project tracking interface, comprises input

3 defining, for each task selection, a respective task description, whereby a task selection for a first

4 project tracking interface may have a first task description, and the same task selection for a

5 second project tracking interface may have a second task description different from said first task

6 description.

1   10.   (Unchanged) The program product of claim 8, wherein each task selection displayed in a

2 project tracking interface includes a task status indicator.

1   11.   (Unchanged) The program product of claim 10, wherein said task status indicator is

2 assumes one of a plurality of colors, each color corresponding to a respective status.

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1   12.   (Unchanged)   The program product of claim 8, wherein said step of receiving interactive

2   input defining, for each of said plurality of groups of users, a respective project tracking interface,

3   comprises generating, for each of said plurality of groups of users, a respective interface definition

4   file, said interface definition files containing entries corresponding to tasks, wherein a first

5   interface definition file for defining said first project tracking interface contains a respective entry

6   for each task selection in said first set of task selections, and a second interface definition file for

7   defining said second project tracking interface contains a respective entry for each task selection

8   in said second set of task selections.

1   13.   (Unchanged)   The program product of claim 12, wherein each said entry in an interface

2   definition file includes a respective task description field, whereby a task selection for said first

3   project tracking interface may have a first task description, and the same task selection for said

4   second project tracking interface may have a second task description different from said first task

5   description.

1   14.   (Unchanged)   The program product of claim 13, wherein each said entry in an interface

2   definition file includes a respective scope field specifying the scope of the task selection, whereby

3   a task selection for said first project tracking interface may have a first scope, and the same task

4   selection for said second project tracking interface may have a second scope different from said

5   first scope.

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1   15.   (Amended)   A computer program product for managing a project requiring a plurality of

2   tasks performed on at least one computer system by a plurality of users, said computer program

3   product comprising a plurality of processor executable instructions recorded on signal-bearing

4   media, said instructions comprising:

5   an interface definition access function, said interface definition access function accessing a

6   project tracking interface definition, said project tracking interface definition being one of a

7   plurality of project tracking interface definitions, each said project tracking interface definition

8   being associated with a respective group of users of said plurality of users, each project tracking

9   interface definition having a respective set of task selections, wherein a first set of task selections

10   of said first project tracking interface definition for a first group of users is different from a

11   second set of task selections of a second project tracking interface definition for a second group of

12   users; and

13   a project tracking interface generator, said generator generating a project tracking interface

14   defined by a project tracking interface definition of said plurality of project tracking interface

15   definitions, said project tracking interface defined by a project tracking interface definition

16   presenting a user with the set of task selections of the project interface definition and allowing the

17   user to invoke task actions corresponding to respective task selections presented to the user by

18   interactively selecting the corresponding respective task selections.

1   16.   (Unchanged)   The computer program product for managing a project of claim 15, further

2   comprising:

3   an interactive interface definition function, said interactive interface definition function

4   interactively receiving and storing a plurality of said project tracking interface definitions, each

5   project tracking interface definition being associated with a respective group of users of said

6   plurality of users.

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1   17.   (New)   The method of claim 1, wherein each said project tracking interface includes a

2   chronological ordering relationship among task selections of its respective set of task selections

3   and at least one indicator indicating a next expected task selection in said chronological ordering

4   relationship among task selections.

1   18.   (New) The program product of claim 8, wherein each said project tracking interface

2   includes a chronological ordering relationship among task selections of its respective set of task

3   selections and at least one indicator indicating a next expected task selection in said chronological

4   ordering relationship among task selections.

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